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THE UNIVERSITY OF ALBERTA

Student Perceptions of Effective Instruction:
Senior Citizens & Undergraduates

by

Betty A. Reiter



A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF Master of Education

IN

Counseling Psychology

Department of Educational Psychology

EDMONTON, ALBERTA

FALL 1988

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled Student Perceptions of Effective Instruction: Seniors & Undergraduates submitted by Betty A. Reiter in partial fulfilment of the requirements for the degree of Master of Education in Counseling Psychology.

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DATED *Sept. 28, 1988.*

DEDICATION

This work is dedicated to my parents, Al and Adel Reiter, who instilled in me the belief that through hard work and determination any goal can be accomplished.

This work is also dedicated in memory of my grandmother, Martha Friedenberger, who taught me first hand what it means to be a senior.

ABSTRACT

The purpose of this study was two-fold: to investigate the perceptions that undergraduate and senior citizen students have regarding what constitutes effective instruction and to determine whether these perceptions differ between the two groups.

Seventy-seven senior citizen students enrolled in non-credit courses during Spring Session for Seniors at the University of Alberta, Canada, were surveyed. Eighty-four undergraduate students enrolled in regular Spring Session credit courses acted as the study's comparison group. A four page questionnaire constructed for this research instructed students to rate the importance of 15 identified characteristics of effective instruction.

The data were analyzed using a Hotelling's T^2 statistical procedure. This analysis of data indicated that, overall, a significant difference was found between the perceptions of seniors and undergraduates. However, in examining the differences between the seniors and undergraduates on each of the 15 characteristics of effective instruction, no difference was found to be statistically significant. The characteristics of effective instruction that seniors identified as being

most important included: the instructor's ability to stimulate or broaden student interest, the instructor's knowledge of the subject matter, the instructor's communication skills, and the instructor's enthusiasm about the subject matter. The characteristics that the undergraduates identified as most important included: the instructor's knowledge of the subject matter, the instructor's communication skills, and the instructor's lecturing and speaking ability.

Implications for adult education are discussed and suggestions are made for future research in this field.

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CHAPTER I

INTRODUCTION

Andragogy is a term that European adult educators coined many decades ago to describe the technology of adult education. Just as pedagogy refers to the art and science of teaching children, andragogy refers to the art and science of teaching adults. Although andragogical learning theory has long been in existence in Europe, it was not until the late 1960's that it was first recognized in North America. Through the efforts of Malcolm Knowles, an American adult educator, the theory that adults are different from youth as learners was promoted in North America.

According to Knowles (1973, 1977), andragogy is based on four main assumptions about the characteristics of adult learners that are different from the assumptions about child learners. The first assumption is that as a person matures, his self concept changes from that of a dependent personality toward that of a self directing human being. The second assumption is that once the individual matures, he accumulates a growing reservoir of experience that becomes a resource for learning. The next assumption is that as a person grows, his readiness to learn becomes more oriented to the developmental tasks

of his social roles. The final assumption is that as the person matures, his time perspective changes from that of delayed application of knowledge to that of immediate application, and thus his orientation toward learning changes from one of subject-centeredness to one of problem-centeredness.

The nature of this study is not to prove or disprove the theory that adults are different from youth as learners. This study is, however, related to andragogy in a general sense and thus familiarity with this learning theory is necessary.

Background to the Study

Historically, higher education for adults has generally geared its courses to suit the needs of traditional students, that is, adults who devote themselves to full time study in order to obtain a diploma or degree. A movement is occurring at this time, however, which is altering the face of higher education. Student demographics are changing due to a dramatic increase in the number of older students taking part in higher education. As a result, traditional students are no longer making up the majority of the learning force (Graulich, 1978).

According to the Carnegie Council on Policy Studies in Higher Education (1980), there will be a 23% decline in 18-24 year old students by 1997 and a 50% increase in students 25 years and older. At the University of Alberta a similar trend is already becoming evident. The University of Alberta's Summary of Statistics for 1986 indicates that 38% of its total university enrollments were adults aged 25 years and over, as compared to 28% in 1971. In terms of senior students aged 60 years and older, University of Alberta enrollments in 1986 have increased 24 fold as compared to enrollments in 1971.

This movement, which many educators have termed "the graying of the campus", can in part be attributed to trends in aging (Graulich, 1978). Due to a steady decline in fertility, coupled with the fact that people are healthier and living longer than ever before, Canada's demographic structure is changing. Two age groups, the young and the elderly, are beginning to move in opposite directions. The population of young people is shrinking and the population of elderly people is growing rapidly. According to Statistics Canada (1984), young people (aged 0 - 17 years) comprised 28% of the population, while elderly people comprised 10%. Population projections suggest that by 2012, these percentages will even out with both groups each making up

17% of the population. If this trend continues, it is believed that by the year 2031, elderly people will reach an incredible 27% of the population, compared to only 15% for young people. In terms of median population age, Statistics Canada projects that the median age of 30 years in 1983 will rise to 41 years in 2006 and to 48 years in 2031.

As the long term decline in birth rates appears to be the trend, and the aging process an inevitable one, we can expect that the age structure of Canadian society in the future will be vastly different from what it is today. Consequently, we must be prepared for changes in every facet of our society, including education, housing, savings, consumption and leisure.

The increased enrollment of older adults in higher education can also be attributed to the widespread desire of adult educators to democratize education. This task has been accomplished by removing barriers that impeded access to opportunities for life-long learning and by designing courses of study which are congruent with the needs, interests, and motives of older learners (Boshier & Collins, 1983).

Heckinger (1975), formerly education editor of the New York Times states: "Continuing education, long viewed with disdain by university regulars, has suddenly been discovered as a wave of the future" (p. 14). Hence,

for elderly individuals who are searching for ways to make their lives more interesting, enjoyable, and challenging, this acceptance of life-long learning has made it possible for them to return to education for this purpose.

Accompanying the older individual's search for personal enrichment and fulfillment, are attempts by traditional institutions to respond to this population. Evidence accumulated over the past decade suggests that universities and colleges have taken seriously the idea that elderly people represent a viable pool of students (Bass, 1986; Covey, 1981). Many higher educational institutions, such as the University of Alberta, are now offering tuition waivers whereby individuals aged 65 years and over can attend classes free of charge on a space available basis after full fee students have registered. Due to the increasingly high number of elderly individuals wishing to participate in education, however, many educational institutions have established programs that are specifically catered to the needs of this age group (Battersby, 1985; Coombe & Battersby, 1984). Such programs, which are offered in various settings and at various levels, include the following: higher education programs (subjects taught to groups of elderly students at community colleges or senior centers), elderhostels (a week long educational

experience on a college or university campus which provides a variety of short courses that involve no grade or examinations, nor special educational background), and universities of the third age (a program that has university affiliation and uses faculty to teach courses specifically geared to the elderly on university campuses).

The "graying of the campus" presents educators and society with the opportunity to meet the educational needs of the elderly. Such opportunities, however, require a careful analysis of the appropriate goals for educating the elderly, an appreciation of the older generation, and an understanding of how people learn (McDaniel, 1984). In addition, higher educational institutions must conduct more research in terms of improving the quality of instruction and learning that is taking place for our elderly.

Statement of Purpose

This study was designed to investigate the perceptions adult students have regarding what constitutes effective higher educational instruction and to determine whether these perceptions are similar among all adult students, regardless of age. The rationale behind this study is that if the perceptions of effective instruction differ between undergraduate students and

senior students (as defined later in this chapter), then perhaps instructors who are trained to teach typical undergraduate students should attempt to modify their teaching characteristics when instructing senior students.

Since senior students have constituted a greater proportion of the adult student population in recent years, and their enrollment continues to increase, a better understanding of the needs and desires of senior students is necessary.

The results of this study could generate information that has the potential for improving teaching and learning in educational institutions. Firstly, this information could be useful in providing instructors with an awareness of the expectations of senior students. This knowledge could enable instructors to modify their teaching behaviors in such a way that best facilitates senior students' learning. Secondly, the results of this study could assist educational administrators who are responsible for the development and implementation of educational programs for seniors. Insight into senior students' preferences and priorities in instruction could make the process of matching the most appropriate instructor with classes for senior students a more efficient one.

A review of the literature revealed that while there

have been several studies generated on undergraduate students' perceptions of effective instruction, there appears to be no evidence of research undertaken with senior students. Therefore, knowledge of preferred teaching characteristics by senior students would add to the body of literature regarding students' perceptions of instruction.

Definitions

Undergraduate

In Webster's Third New International Dictionary (1976), undergraduate is defined as a college or university student who has not yet taken a first degree. This is in accordance with the University of Alberta's definition which states that an undergraduate is an individual who is registered for study in any faculty other than the faculty of Graduate Studies and Research.

Senior

Senior is defined in Webster's Dictionary as an older or elderly person who is more advanced in age than another. For the purpose of this study, the term senior is used to describe any retired individual who is 60 years of age or older. This is in keeping with the definition that the University of Alberta's Faculty of Extension employs to determine the eligibility of

individuals applying to the Spring Session for Seniors program.

Limitations

There are certain limitations associated with virtually any piece of research. This study sample consisted of volunteer senior and undergraduate students and is therefore exposed to all limitations of such a sample.

Due to the difficulty in finding a sufficient number of seniors enrolled in credit courses, a sample of seniors enrolled in non-credit courses was chosen. The comparison group consisted of undergraduate students enrolled in credit courses, who were selected because they most closely approximated the sample of seniors in terms of type of course taken. Therefore, to analyze the results the researcher interpreted the effects of age and course credit status together as there was no way to separate the two.

Project Format

Following the introduction of the background and purpose of the study in Chapter I, a review of the literature relevant to the area of investigation is presented in Chapter II. In Chapter III the design of the study is provided, along with details regarding the

selection of subjects, the instrument used and the procedure followed. Chapter IV reports the research findings and provides an analysis of them. Finally, a summary of findings, conclusions to be drawn from these findings, and implications for further research are presented in Chapter V.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Several years ago, when educational institutions in general began to experience a decline in enrollment, there appeared to be an increased concern regarding the effectiveness of instruction. The amount of purposeful, well designed, published research increased in an attempt to identify those characteristics that constitute effective instruction. Although a significant decline in enrollment has not yet occurred at the University of Alberta, the student population did level off and then drop slightly during the late 1970's. At the present, partly as a result of university policy, student enrollment once again appears to be slowly starting to level off after a sharp increase experienced during the early part of the 1980's (University of Alberta, 1988). This slowing down in university population growth could possibly lead to another drop in enrollment in the distant future.

Efforts to identify the specific instructional characteristics that contribute to effective instruction have taken a number of different routes in terms of data collection. One avenue the research has taken has been

to identify specific characteristics and then ask students to rate (usually on a Likert type scale) their present course instructor on each characteristic. A variation on this approach has been to ask students to rate the importance of identified characteristics based on what they perceive constitutes effective instruction in general. These formal questionnaires have been the most widely used likely because they are easy to administer and score. A second approach has been to allow students to generate and write those characteristics which they feel exemplify excellence in teaching. Another method of data collection has been to interview teachers identified as excellent and ask them what characteristics they emphasize or feel are important for effective instruction. Finally, yet another approach has been to correlate observer reports of specific instructional characteristics with student ratings of overall teaching effectiveness.

The remarkable finding is that regardless of the method of data collection, the same characteristics of effective instruction are identified time and time again (Feldman, 1976; Murray, 1985). Furthermore, when the same characteristics are repeatedly and consistently recognized, we assume that they are important ingredients in terms of effective instruction.

Utility of Students' Perceptions of Effective Instruction

Throughout history, higher educational institutions have been devoted to the twin purpose of research and instruction (Mountford, 1966). In recent years, however, a stronger emphasis has been placed on instruction. As a consequence of the increasing number of students and budgetary limitations, instructors have had to assume heavier teaching loads, thus allowing less time for research activities. Another reason for this shift in emphasis lies in the rising expectations on the part of students. Students have increasingly viewed a degree or a diploma as a necessary means to obtaining good employment, hence the demand for better instruction. It is because of these factors that most educational institutions want to know what the current state of instruction is and how it can be improved, if indeed it needs to be improved. Like so many other educational institutions, the University of Alberta's Committee for the Improvement of Teaching and Learning has adopted the following philosophy:

Good teaching is serious business, and any university interested in improving its teachers and its teaching must, we think, be willing to help those who are willing to help themselves. The

improvement of teaching is too important to be left to chance or assigned to faculty members as a task over and above their normal loads.

(Thomas, 1979, p. 3)

Most researchers would agree that much potential exists for the improvement of education and learning through the identification of characteristics that students perceive contribute to effective instruction (Burdal & Bardo, 1986; Feldman, 1976; Miller, 1975). Research suggests that informative feedback, or knowledge of results, has been found to improve human performance in many different contexts (Annett, 1969; Murray, 1987). Therefore, there is good reason for expecting informative feedback, regarding the instructional characteristics that students perceive to be most important for effective instruction, to have similar beneficial effects on teaching performance in educational institutions. The underlying assumption is that the importance of these characteristics as perceived by students will provide useful information for instructors who wish to improve their teaching.

According to Stoffel (1987), this type of research has utility not only among typical undergraduate populations, but also among less typical university populations. As the number of senior students attending higher education is increasing, instructors are

finding that these new, older clientele often require a nontraditional delivery of the educational package. Therefore, the use of seniors' perceptions of effective instruction can provide useful information to instructors who may be wondering what these delivery systems are.

It is important to note that an investigation of what students perceive as being important to effective instruction, as opposed to what teachers or others perceive, is not a novel concept. In his book Politics, Aristotle brought to our attention that we can get a better idea of the merits of the dinner from the guests, rather than from the cook.

Characteristics of Effective Instruction

A. Across Study Research

There is general agreement in the research literature that effective instruction is multifaceted. There is no unitary goal for teaching and many phenomena contribute to the perceived quality of a class or an instructor (McKeachie, 1979). Despite diverse research approaches over the last several decades, however, there are certain characteristics of effective instruction that seem to appear many times in the research literature (Feldman, 1976; Gleason, 1986; Miller, 1975; Murray, 1985; Wotruba & Wright, 1975).

In their analysis of twenty-one published research

studies, Wotruba and Wright (1975) obtained a representation of criteria of effective instruction. The characteristics of effective instruction most often cited across these studies were ranked in the following order:

1. Communication skills
2. Attitudes toward students
3. Knowledge of the subject
4. Organization of the subject matter
5. Enthusiasm for the subject
6. Fairness in grading
7. Willing to experiment--flexible
8. Encouragement of students to think for themselves
9. Personality and appearance
10. Ability to lecture
11. Respects the opinions of students
12. Researcher--scholarship activities.

Feldman (1976) systematically synthesized the results of forty-nine research studies which contained information regarding instructor traits that college students considered to be important for good teaching or characteristic of their ideal or best teachers. Feldman found that across studies the following eight instructor characteristics were consistently associated with effective instruction:

1. Concern or respect for students--including
friendliness

2. Knowledge of subject matter
3. Stimulation of students' interest
4. Availability and helpfulness
5. Encouragement of questions and discussion--openness to the opinions of others
6. Ability to explain clearly
7. Enthusiasm for the subject or for teaching
8. Preparation for and organization of the course.

Although phrased somewhat differently, the characteristics identified in Feldman's study resemble the ones appearing in Wotruba and Wright's list. Similar characteristics turn up over and over again in one form or another whenever the question of what describes effective teaching is asked. For a summary of the characteristics of effective instruction identified by others over the last five decades, refer to Table 1.

B. Cross Cultural Research

In that past decade, increased interest has been directed towards the investigation of student perceptions of effective instruction across different cultures. The rationale behind such research has been to determine the following: if teaching effectiveness can be measured in different cultures, if evaluation forms developed in North America are appropriate for other cultures, if the

Table 1

Characteristics of Effective Instruction		
Bousfield (1940)	Burdsal & Bardo (1986)	Clinton (1930)
-fairness	-organization and structure of course	-knowledge of subject matter
-mastery of subject	-stimulates interest and encourages thinking	-pleasing personality
-interesting presentation of material	-attitude towards students	-neatness in appearance and work
-well organized material	-fairness in evaluations.	-fairness
-clearness of exposition		-kind and sympathetic
-interest in students		-keen sense of humor
-helpfulness		-interest in profession
-ability to direct discussion		-interesting presentation
-sincerity		-alertness and broadmindedness
-keenness of intellect.		-knowledge of methods.
Listed in order of importance by 61 undergrads at U of Connecticut.	Listed in order of importance by 42,019 undergrads at Wichita U.	Listed in order of importance by 177 undergrads at Oregon U.

Table 1 Cont'd

Deshpande, et al (1970)	French (1957)	Gadzella (1968)
-motivation	-interprets ideas clearly	-knowledge of subject
-rapport		-interest in subject
-structure	-develops student interest	-flexibility
-clarity		-well prepared
-content mastery	-develops skills of thinking	-uses appropriate vocabulary.
-overload-- too much work	-broadens interests	
-evaluation procedure	-stresses important materials	
-use of teaching aids	-good teaching methods	
-instructional skills	-motivates to do best work	
-teaching styles.	-knowledge of subject	
	-conveys new viewpoints	
	-clearly explains.	
Listed in order of importance by 674 undergrads at an American University.	Listed in order of importance by 125 undergrads at Washington U.	Listed in order of importance by 443 undergrads at Washington State College.

Table 1 Cont'd

Gurney (1977)	Hildebrand (1971)	Jacobson (1982)
-knowledge of the subject	-dynamic and energetic person	-stimulates interest and encourages thinking
-general knowledge of educational facts	-explains clearly	-knowledge and enthusiasm for subject
-flexibility	-interesting presentation	-organization and presentation of course
-rapport.	-enjoys teaching	-communication skills
	-interest in students	-committed to improving the quality of education.
	-friendly toward students	
	-encourages class discussion	
	-discusses other points of view.	
Listed in order of importance by 140 undergrads at Florida Tech. U.	Listed in order of importance by 338 undergrads & graduates at U. of California.	Listed in order of importance by 46 undergrads at North Dakota U.

Table 1 Cont'd

Perry (1969)	Pogue (1967)
-well prepared for class	-knowledge of subject
-sincere interest in subject	-fair evaluator
-knowledge of subject	-explains clearly.
-effective teaching methods	
-tests for understanding	
-fair in evaluation	
-effective communication	
-encourages independent thought	
-course organized logically	
-motivates students.	
Listed in order of importance by 1,493 undergrads, faculty & alumni at Toledo U.	Listed in order of importance by 307 undergrads at Philander Smith College.

same components that underlie effective teaching in North America are relevant in other cultures, and if research into teaching effectiveness that has been conducted in North America has applicability to other settings (Marsh, 1981).

Miron and Segal (1978) conducted a study which investigated Israeli college students' concepts of effective instruction. Approximately 600 undergraduates were asked to select the three most important characteristics of good teaching from a list of fifteen. The three qualities which received the highest frequency of choices were documented as follows:

1. Interesting presentation of material
2. Knowledge, preparation and organization of lessons
3. Communication of ideas
4. Stimulation of student learning.

In a more recent Israeli study, Avi-Itzhak and Kremer (1983) surveyed over 500 university students in order to ascertain a profile of the effective instructor whom students recommend to each other. The results of this research study indicated that an effective instructor should possess the following characteristics:

1. Knowledgeable in subject
2. Organizes the lecture well
3. Accommodates to the students' needs and interests.

Moses (1985) asked approximately 10,000 Australian university students to respond to a question regarding their instructors' strengths in teaching. Results clearly indicated that despite the diversity of teacher characteristics and teaching contexts, common elements of effective teaching were evident. It was found that overall effectiveness as a university teacher correlated highly with the following items on the questionnaire used in the survey:

1. Knowledge of subject matter
2. Communication skills
3. Facilitation of student learning
4. Concern for individual students' needs.

On the basis of these investigations, it appears that research studies on student perceptions of effective instruction in Israel and Australia tend to support the North American findings. This suggests that certain characteristics of effective instruction are similar across various cultures.

C. Research Across Faculties

In order to ascertain the generalizability of the research findings, efforts have been made to identify the perceptions that students in different disciplines have regarding effective instruction. Results indicate that

students tend to agree with one another on which characteristics contribute positively to instructional impact and that the perceptions of students in different faculties are consistent regardless of their academic content areas (Erdle & Murray, 1986; Moses, 1985).

Although other investigators will concur that the similarities in the perceptions of effective instruction among students in different academic fields are high, they maintain that certain subtle differences do appear (Avi-Itzhak & Kremer, 1983; Feldman, 1976; Miron and Segal, 1978). Analysis of research across these studies, however, reveals that overall there was no consistency among these differences.

D. Gender Differences

Review of the literature indicates that relatively few studies have been conducted to investigate whether students' perceptions of effective instruction are consistent regardless of the gender of the student. In the research undertaken by Hearn (1985), some differences were noted between male and female students in the emphasis they placed on various characteristics of instruction. These differences, however, were not very large and the results were not consistent across other studies (Grasha, 1975; Mueller et al., 1971). Moreover,

no differences in preferences were found between males and females in other studies (Feldman, 1976; Gill & Brooks, 1985).

E. Students' Perceptions vs. Other Observers' Perceptions

Most researchers would concur that with regard to the characteristics that contribute to instructional effectiveness, the perceptions of faculty, external judges, and educational researchers, appear to be in agreement with student perceptions (Burdsal & Bardo, 1986; Doyle & Crichton, 1978; Marsh et al., 1979). White and Ahmadi (1986) investigated the congruency of student and instructor perceptions of what constitutes effective instruction. Data was gathered from 15,853 undergraduate students and 100 instructors at an American university. A questionnaire was used which asked respondents to rank-order preferences of what constitutes an effective instructor. Results suggested that while there was not total unanimity on the rank ordering of all characteristics, instructors and students both agreed on what constituted the most important characteristics of effective instruction. Both groups perceived that "having a thorough knowledge of the subject matter" was the single most important characteristic of effective instruction, while "presents subject matter clearly" and "judges student work fairly" were ranked second and third

respectively, in terms of importance. The instructors then selected "uses class time effectively" as the fourth most important characteristic, while students perceived "makes tests consistent with material covered or assigned" as being next in terms of importance.

F. Nontraditional Students' Perceptions

Although numerous research studies and surveys have been conducted to identify what traditional students perceive the characteristics of effective instruction to be, relatively little has been done to examine the perceptions of nontraditional students. Traditional students are generally defined as being young, single, unemployed adults who devote themselves to full time undergraduate study in order to obtain a diploma or degree, whereas nontraditional students are typically older, married, employed adults who participate in part-time study with different expectations, capabilities, and needs, than traditional undergraduates (Keller & Switzer, 1983).

Keller and Switzer (1983) sought to determine whether the perceptions of teaching effectiveness differed between traditional students and nontraditional students. Their comparative analysis was conducted at an American college where 22 traditional undergraduate

students and 13 nontraditional students were asked to describe the best teacher they ever had. According to Keller and Switzer, nontraditional students placed more emphasis on personality (dynamic personality, talented, enjoyed their work) and interaction (good teacher-student relationship, good communication skills) dimensions, than did their younger counterparts. Traditional students, however, placed considerably more importance on role-related behaviors (knowledgeable, motivates the student), than did the nontraditional students. The researchers suggested that by giving prompt, specific and descriptive feedback, rather than evaluative feedback, instructors could help to satisfy the nontraditional students' need to define themselves as potentially successful students.

Pfister (1978) randomly selected and surveyed 108 continuing education students in his investigation of nontraditional students' expectations of teachers. Research findings indicated that the continuing education students' primary concern involved "receiving up to date information from the instructor". These nontraditional students also viewed "teacher communication" and "enjoyment of teaching" as being important characteristics of effective instruction. In contrast, Pfister noted that continuing education students ranked "the requirement of a large amount of work" and "offers

out of class assistance" as being least important in terms of effective instruction.

Stoffel (1987) conducted a study which consisted of 388 female adults who were enrolled in an American undergraduate program of study where students spend limited time on campus and do their course work at home. The majority of these nontraditional students were middle-aged, with jobs and families, and other obligations and could not attend traditional classes without difficulty. Analysis of the survey data from Stoffel's study indicated that high ratings were attributed to the following three characteristics of effective distance instruction:

1. Providing feedback
2. Promptness
3. Helpfulness.

It appears that the common thread running through these studies conducted with nontraditional populations is that self motivated, nontraditional adult learners thrive on taking control of their own learning, rather than relying on others. These findings are supported by research in andragogical study which emphasizes adult learners' preferences for autonomy (Brookfield, 1986; Eldred, 1985), and their pragmatism and desire to solve problems which motivate their own learning (Cross, 1982).

Need for the Present Study

As there appears to be some disparity between the perceptions of traditional students and nontraditional students in terms of what constitutes effective instruction, one is led to question whether similar results would be found in the perceptions of senior students. There is a larger gap between the learning interests of young and old than there is between elderly rich and poor, men and women, or black and white. Generally, older persons are motivated to study what interests them (Bass, 1986). Most would agree that these older students must be highly motivated individuals especially if they are willing to learn in a setting composed of students who, for the most part, are much younger than themselves. Their younger counterparts, on the other hand, tend to be motivated by the major responsibilities of young adulthood--succeeding in an occupation and rearing a family (Boshier & Collins, 1985).

Analysis of studies investigating the motivation of older adults in higher education and their reasons for participation, indicates that appreciable differences were found between older and younger adults. According to Furst and Steele (1986), who surveyed 78 adult learners between the ages of 62 and 85, the four strongest motivators for senior students were as follows:

1. Intellectual stimulation and enjoyment
2. Practical achievement
3. Fulfillment and stimulation
4. Self maintenance.

Evidently, intellectual challenge and achievement were very important to these older learners. This finding is supported by the research of Boshier and Collins (1985), Boshier and Riddell (1978), and Pritchard (1979), who all concur that cognitive interest is the strongest reason for participation in education by older adults.

Furst and Steele also reported that the lowest motivators for senior students included:

1. Formal attainment and recognition
2. Self understanding and personal adjustment
3. Qualifying for privileges.

The researchers explain these findings by emphasizing that for elderly individuals, there is no pressure to take courses which are required for a degree or career, to pass tests, to write reports, or to obtain a certain grade point average. Rather, it is a time to relax and enjoy education, pursuing topics of interest in a leisurely fashion.

Senior students, aged 60 years and older, form a distinct subpopulation in terms of educational needs and interests, and thus are worthy of study in their own right. The senior years are marked by an abrupt

transition into retirement, increased leisure time and various adversities, such as declining powers and loss of significant other (Buchanan, 1988). In order to fill the void created by a lack of occupation or other loss, some seniors choose education. This enables them to become engaged in the mainstream of life rather than to withdraw, to maintain their power and self respect, and to learn for the joy of learning (Wolf, 1985).

Given the increased enrollment of senior students in educational institutions, the notable absence of research regarding seniors' perceptions of the characteristics that constitute effective instruction is discouraging. Since the perceptions of senior students per se have not been investigated, we must endeavor to learn what we can from studies involving other populations of students. Insight into the perceptions of other nontraditional populations raises the following two questions: do senior students, like the students in other nontraditional populations, thrive on taking control of their own learning rather than relying on others? and, does independence and self motivation increase with the age of the student, thus being even more true for senior students?

CHAPTER III

DESIGN OF THE STUDY

Overview

This study was conducted in May 1988, during Spring Session at the University of Alberta campus. The University of Alberta, located in the city of Edmonton, Alberta, was founded in 1908. It is the largest of three universities serving a province which at the end of 1986 had a population of 2,365,825. In 1986-87, the university enrollment consisted of 24,304 full-time undergraduate students and 4,710 part-time undergraduate students in fifteen faculties, in addition to 4,544 students enrolled in the Faculty of Graduate Studies and Research. Spring Session for Seniors, a special three week program catering to retired individuals aged 60 years and over, overlaps in the first three weeks with the regular Spring Session at the University of Alberta. This program for older adults offers a variety of non-credit, general interest courses which include: creative writing, Canadian history, music appreciation, and physical fitness. Spring Session for Seniors has been in existence for the last fourteen years. Its enrollment has increased from 220 seniors in 1975 to nearly 350 in 1987.

Subjects for this study were selected from the setting just described. The causal-comparative method was then used to compare the perceptions of senior students with those of undergraduate students, who were essentially comparable except for two critical variables: age and course credit status. A cross-sectional survey was employed in order to collect data from which the relationships among variables were studied.

Subjects

The subjects were individuals enrolled in non-credit English literature and creative writing courses offered during Spring Session for Seniors at the University of Alberta. The two criteria for enrolling in these courses are that the individual must be retired and 60 years of age or over.

The Characteristics of Effective Instruction Questionnaire, constructed for this research, was administered to six classes of senior students. Of the 81 questionnaires completed by the seniors, 4 were deemed unusable due to inadequate completion. Seventy-seven respondents, 14% of whom were male and 86% of whom were female, constituted the senior sample for this study. The disproportionately higher number of females to males can in part be attributed to an imbalance in the sex

ratio of the senior population as a whole. According to Statistics Canada's 1986 census there were only 725 males to every 1000 females aged 65 years and over. Another possible cause for this imbalance is due to the fact that there are more single females (widowed, divorced, never married), than there are single males. According to the 1986 census, for every single male age 65 years and over, there are approximately four single females of the same age. Since a far greater proportion of older women are single, perhaps they have a greater interest in participating in activities that get them involved in the community, such as continuing education (Sykes, 1981).

The demographic data collected from the senior group regarding age indicated that a total of 11 individuals fell into the 55-64 year age group, 46 persons fell between the ages of 65-74, and 20 individuals were 75 years of age and over. Table 2 provides frequencies and percentages of demographic data on age for the senior sample. In terms of the highest educational level attained, on the average the senior sample consisted of highly educated individuals. A total of 47% had attended and/or completed university (N=36). Ten percent had a trade certificate, diploma or some other type of non-university post-secondary education (N=8), 25% had a high school diploma (N=19) and the remaining 18% had some high

TABLE 2

Frequencies and Percentages of Demographic
Data on Age for the Senior Group (N=77)

Age Category	Frequency	Percentage
55-64 years	11	14.3
65-74 years	46	59.7
75+ years	20	26.0

school training without a diploma (N=14). Figures from Statistics Canada's 1986 census indicate that of the general population aged 65 years and over, only 8.8% individuals had attended university and of that number, only 4.2% had actually obtained degrees. Table 3 provides frequencies and percentages of demographic data on education for the senior sample.

All members in the senior sample had attended Spring Session for Seniors at least once before, thus indicating that they have had some exposure to instruction in recent years.

A sample of undergraduate students was surveyed to act as a comparison group. The subjects were enrolled in an introductory English credit course offered during Spring Session at the University of Alberta. The Characteristics of Effective Instruction Questionnaire was administered to four classes of undergraduate students. Of the 88 questionnaires completed by the undergraduates, one was deemed unusable due to being inadequately completed. Another three questionnaires were excluded because they were completed by individuals who possessed a university degree and thus did not meet the criteria for the undergraduate group. Eighty-four individuals, 45% of whom were males and 55% of whom were females, constituted the undergraduate sample. The

TABLE 3

Frequencies and Percentages of Demographic
Data on Education for the Senior Group (N=77)

Level of Education	Frequency	Percentage
University with degree	19	24.7
University without degree	17	22.1
Trade certificate or diploma and other non-university training	8	10.4
High school with secondary certificate or diploma	19	24.7
High school without secondary certificate or diploma	14	18.2

demographic data collected for the undergraduates indicated that with respect to age, a total of 61 individuals fell into the 18-24 year age category, 16 persons fell between the ages of 25-34, 6 individuals were in the 35-44 year age group and one person reported to be between the ages of 45-54. Table 4 provides frequencies and percentages of demographic data on age for the undergraduate sample.

The independent variables in this study were age and course credit status combined. The dependent variables were the 15 characteristics of effective instruction described below. This study employed two levels of age status: senior students and undergraduate students. A Likert scale questionnaire was utilized in order to measure student perceptions of effective instruction.

Instrument

A standard instrument used to measure student perceptions of what constitutes effective instruction does not exist. An effective instruction rating instrument, which consisted of the most commonly identified characteristics of effective instruction, was constructed for this research. Twenty-one selected research studies of effective instruction were reviewed by Wotruba and Wright (1975) in order to obtain a representation of these criteria. The top fifteen

TABLE 4

Frequencies and Percentages of Demographic Data
on Age for the Undergraduate Group (N=84)

Age Category	Frequency	Percentage
18-24 years	61	72.6
25-34 years	16	19.0
35-44 years	6	7.1
45-54 years	1	1.2

characteristics identified by Wotruba and Wright (excluding three items that were deemed not applicable to the senior students--student progress, assignments, and grading, and one item that was viewed as being ambiguous and likely to be misinterpreted by the subjects--"instructor as a worthwhile human being") were used in constructing a Likert questionnaire for this research study. The characteristics, rearranged in random order for the questionnaire, are as follows:

1. Communication skills--interprets abstract ideas and theories clearly
2. Pleasant personality or personal appearance
3. Ability to stimulate or broaden student interest
4. Researcher--scholarship activities
5. Good organization of the subject matter and course
6. Encourages students to think for themselves
7. Has a variety of interests
8. Attitudes toward students which are favorable
9. Interesting as a lecturer--good speaking ability
10. Willing to experiment--flexible
11. Self-controlled, cooperative, patient
12. Knowledge of the subject
13. Effective use of questions in class discussions
14. Enthusiastic about the subject
15. Respects student opinion and is tolerant to [sic] student disagreement.

The Likert questionnaire instructed subjects to rate each of fifteen characteristics on a scale of 1 to 5: very low importance (1) to very high importance (5). In order to gather additional information, the subjects were also asked to respond to an open-ended question regarding what they perceived to be the single most important characteristic of effective instruction. Four closed form questionnaire items regarding age, sex, education, and previous attendance at Spring Session for Seniors, were also included. The questionnaire was printed using large type and allowed ample spacing between items in order to accommodate those individuals who may have had a visual impairment. See Appendix A for a copy of the questionnaire.

The questionnaire was pre-tested on individuals similar to members of the sample groups. Information that was gathered about the instrument during the pre-test was then taken into consideration and the questionnaire was refined accordingly.

As there was no information in the body of the research literature specifically regarding senior students' perceptions of effective instruction, the questionnaire developed for this study was based on research with undergraduate students. This leads one to question whether the questionnaire includes

characteristics that the seniors consider to be most important. In order to account for this limitation, an open-ended question was included in the questionnaire which asked respondents to identify the single most important characteristic of effective instruction. The results of this will indicate if seniors record common characteristics that have not been already listed in the questionnaire.

In terms of validity, systematic ratings are usually based on literature surveys, instruments presently being used successfully in other educational institutions, and personal opinions of individuals working in the area (Cohen, 1981). As no standards or commonly agreed upon criteria of effective teaching exists, there is much debate as to what the best instrument is. It is because of this lack of external criteria that few studies of validity have been attempted. When such studies are undertaken, they are rarely accepted by everyone involved in this area. As the rating instrument used in this study was based on characteristics of effective instruction collected from an extensive review of the literature, it is likely that it has face validity. In addition, the instrument is also assumed to have construct validity because of its research base.

In order to estimate reliability for this new instrument, test-retest reliability was calculated. The

instrument was administered to a sample of 14 senior citizen students who were enrolled in a non-credit writing course offered at an organization for retired individuals (Society for the Retired and Semi-Retired). After a delay of one week the instrument was administered to the same group of individuals. Responses obtained from the two administrations were then correlated. The coefficient of stability was found to be .949 which suggests that the instrument has very good reliability based on this sample of senior students.

As this questionnaire was a newly designed rating instrument, no previous norms existed. It is for this reason that a comparison group was utilized. The survey was administered by this researcher to senior students and undergraduate students in the third week of Spring Session during the last 15 minutes of class. The rationale for collecting the research data well into the course was so that those individuals who had been absent from course instruction for a period of time had the opportunity to reorientate themselves to academia.

This researcher completed the scoring and marking procedures. Using a Likert scale, each subject received a score rating of 1 to 5 for each questionnaire item or variable which is representative of a particular characteristic of effective instruction.

Data Collection

The instructors of the classes to be sampled, were contacted prior to Spring Session in order to obtain their permission to survey students. The rationale for the study and the potential that it has for improving education and learning were outlined to the course instructors, as well as to the subjects. In order to minimize the possibility of students viewing this survey as an evaluation of their present course instructor, during the explanation of the study it was emphasized that the focus of the questionnaire was to tap overall perceptions of effective instruction. To assure confidentiality, the subjects in both samples were asked to furnish information anonymously.

Data Analysis

Each of the fifteen characteristics (variables) of effective instruction on the rating instrument was scored. This yielded a number from 1 to 5 for each subject on each of the fifteen variables. The total scores for each variable from all subjects in the senior sample and from all subjects in the undergraduate sample were used to determine the means and standard deviations. A Hotelling's T^2 statistical procedure was employed in order to test the significance of differences in ratings among the two populations. As the Hotelling's T^2

identified significant differences in ratings, post-hoc t-tests were then used to locate precisely where the differences existed.

CHAPTER IV

RESULTS

A statistically significant difference was found regarding overall perceptions of what constitutes effective instruction between seniors enrolled in non-credit courses during Spring Session for Seniors and undergraduates enrolled in credit courses during Spring Session ($T^2[15,145]$, $p < .001$). However, in examining the differences between the seniors and undergraduates on each of the 15 characteristics of effective instruction, no difference was found to be statistically significant. Thus the 15 variables as a group generate a significant difference between the seniors and undergraduates, but no one variable, or grouping of variables, was strong enough to explain the difference. These results are presented in Table 5.

The highest rated criteria and their means for the senior group were as follows: "instructor's ability to stimulate and broaden student interest" (4.792), "instructor's knowledge of the subject" (4.779), "instructor's communication skills" (4.701), and "instructor's enthusiasm about the subject" (4.701). The characteristics ranked highest by the undergraduate group included: "instructor's knowledge of the subject"

TABLE 5

Perceptions of Effective Instruction:
Means and Standard Deviations
for Senior and Undergraduate Groups

Characteristic	Seniors		Undergraduates	
	M	SD	M	SD
V1 Communication skills	4.701	.630	4.667	.627
V2 Personality/appearance	3.831	.880	3.786	.865
V3 Stimulates interest	4.792	.408	4.583	.662
V4 Research activities	3.494	.927	3.107	.932
V5 Well organized	4.571	.572	4.571	.566
V6 Encourages thinking	4.649	.602	4.226	.717
V7 Many interests	3.779	.898	3.810	1.024
V8 Attitude to student	4.312	.815	4.321	.763
V9 Interesting speaker	4.532	.640	4.607	.659
V10 Experiments/flexible	4.091	.798	4.071	.773
V11 Cooperative/patient	4.338	.661	4.321	.643
V12 Knowledge of subject	4.779	.475	4.833	.406

Table 5 Cont'd

Characteristic	Seniors		Undergraduates	
	M	SD	M	SD
V13 Effective Questions	4.156	.859	4.119	.782
V14 Enthusiasm for subject	4.701	.586	4.452	.684
V15 Respects opinions	4.403	.730	4.440	.628

(4.833), "instructor's communication skills" (4.667), and "instructor's lecturing and speaking ability" (4.607).

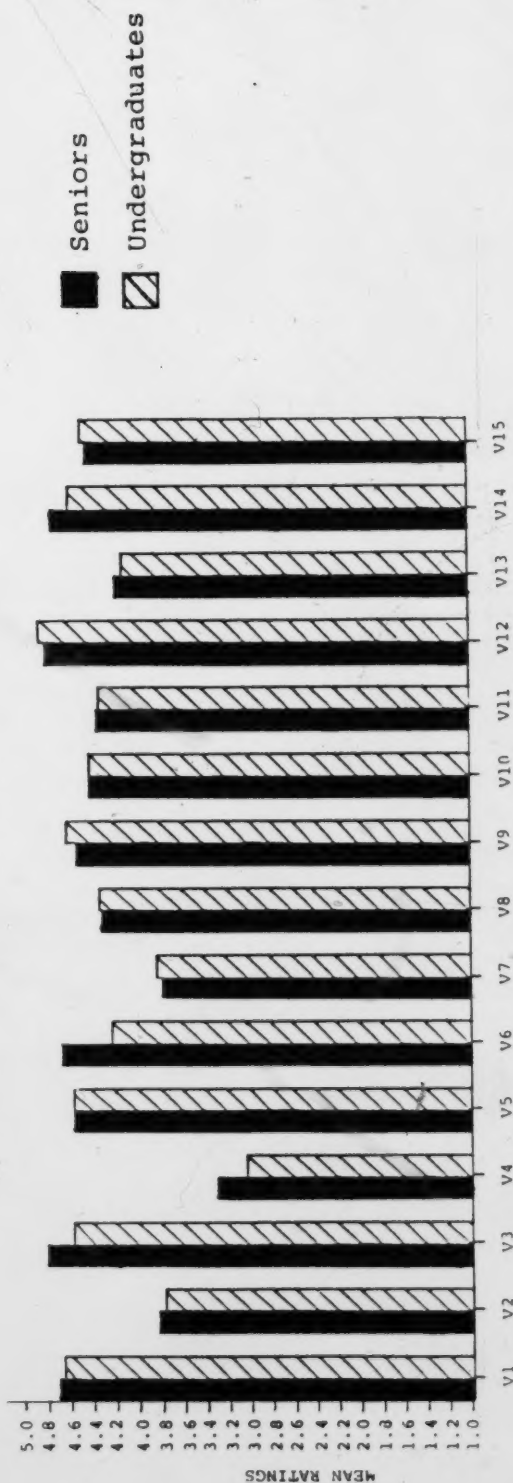
An examination of the standard deviations reveals that there is more unanimity or consensus, regarding the most important characteristics of instruction, among the senior group than there is among the undergraduate group.

The lowest ranked characteristics for both the senior and the undergraduate groups included: "instructor's research and scholarship activities", "instructor's interests", and "instructor's personality and personal appearance". The means for these characteristics were 3.494, 3.779 and 3.831 for seniors, and 3.107, 3.810 and 3.786 for the undergraduates respectively. The standard deviations for these characteristics were relatively high for both groups, thus indicating less unanimity. Figure 1 provides a visual display of the two groups' ratings on all variables.

With regard to the open-ended question related to the students' perception of the single most important characteristic of effective instruction, 66% (N=51) of the seniors and 81% (N=68) of the undergraduates chose a characteristic which was already listed in the questionnaire. The instructor's communication skills was most often cited as the single most important

FIGURE I

Histogram Showing the Ratings on all Characteristics of Effective Instruction for Senior and Undergraduate Groups



CHARACTERISTICS OF EFFECTIVE INSTRUCTION

- V1 Communication skills--interprets abstract ideas and theories clearly
- V2 Pleasant personality or personal appearance
- V3 Ability to stimulate or broaden student interest
- V4 Research--scholarship activities
- V5 Good organization of the subject matter and course
- V6 Encourages students to think for themselves
- V7 Has a variety of interests
- V8 Attitudes toward students which are favorable
- V9 Interesting as a lecturer--good speaking ability
- V10 Willing to experiment--flexible
- V11 Self controlled, cooperative, patient
- V12 Knowledge of subject
- V13 Effective use of questions in class discussions
- V14 Enthusiastic about the subject
- V15 Respects student opinion--is tolerant to student disagreement

characteristic of effective instruction by both the senior group (26%) and the undergraduate group (34%). Twenty percent of the seniors and 22% of the undergraduates indicated that the "instructor's ability to stimulate or broaden student interest" was most important, while 22% of the seniors and 9% of the undergraduates indicated the "instructor's knowledge of the subject" was the single most important characteristic of effective instruction. Another 13% of the seniors and 7% of the undergraduates thought that the most important characteristic was the "instructor's enthusiasm about the subject". The percentage of responses for characteristics already listed in the questionnaire for the senior and undergraduate groups, are presented in Table 6 and Table 7 respectively.

Twenty-five percent (N=19) of the seniors responded to the open-ended question with a characteristic that had not been listed in the questionnaire. The following characteristics were among their responses: love or dedication for teaching, interest in students, ability to be understanding and empathetic toward students, capacity to be sincere and truthful, willingness to give time and effort to students, ability to help students reach their highest potential, commitment to improving the world and its people, ability to enhance the self esteem of students, ability to provide helpful advice to students,

skill in using humor in teaching, and competence in using good teaching methods. Table 8 provides a comprehensive list of the seniors' novel responses.

Eighteen percent (N=15) of the undergraduates provided a novel response to the open-ended question. Among the characteristics cited as being the most important were: capacity to form a good relationship with students, interest in student performance and student potential, ability to make instruction comfortable and enjoyable, capacity to be empathetic toward students, willingness to sacrifice time for appointments with students, ability to make criticism constructive, willingness to allow students to make their own choices in terms of taking particular courses, and ability to feel challenged by teaching. Table 9 provides a comprehensive list of the undergraduates' novel responses.

The remaining 9% (N=7) and 1% (N=1) of the senior and undergraduate groups respectively, provided no response to the open-ended question.

TABLE 6

Single Most Important Characteristic of Effective
Instruction as Perceived by Senior Group--
Percentage of Responses for Characteristics Already
Listed in Questionnaire

Characteristic	Percentage
Communication skills--interprets abstract ideas and theories clearly	26%
Knowledge of subject	22%
Ability to stimulate or broaden student interest	20%
Enthusiasm for the subject	13%
Ability to encourage students to think for themselves	7%
Organization of the subject matter and course	3%
Capacity to be self controlled, cooperative, and patient	3%
Attitudes toward students which are favorable	1.5%
Pleasantness of personality and personal appearance	1.5%
Competence as a lecturer and speaker	1.5%
Tolerance toward student disagreement-- respects student opinion	1.5%

TABLE 7

Single Most Important Characteristic of Effective
Instruction as Perceived by Undergraduate Group--
Percentage of Responses for Characteristics Already
Listed in Questionnaire

Characteristic	Percentage
Communication skills--interprets abstract ideas and theories clearly	34%
Ability to stimulate or broaden student interest	22%
Knowledge of subject	9%
Enthusiasm for the subject	7%
Organization of the subject matter and course	6%
Tolerance toward student disagreement-- respects student opinion	6%
Ability to encourage students to think for themselves	3%
Competence as a lecturer and speaker	3%
Attitudes toward students which are favorable	3%
Pleasantness of personality and personal appearance	2%
Skill at using questions effectively in class discussion	2%
Willingness to experiment--flexibility	2%
Capacity to be self controlled, cooperative, and patient	1%

TABLE 8

Single Most Important Characteristic of Effective
Instruction as Perceived by Senior Group--
Novel Responses not Listed in Questionnaire

Characteristic	Frequency
Love or dedication for teaching	4
Interest in students	3
Ability to be understanding and empathetic toward students	3
Capacity to be sincere and truthful	2
Willingness to give time and effort to students	1
Ability to help students reach their highest potential	1
Commitment to improving the world and its people	1
Ability to enhance the self esteem of students	1
Ability to provide helpful advice to students	1
Skill in using humor in teaching	1
Competence in using good teaching methods	1

TABLE 9

Single Most Important Characteristic of Effective
Instruction as Perceived by Undergraduate Group--
Novel Responses Not Listed in Questionnaire

Characteristic	Frequency
Capacity to form a good relationship with students	5
Interest in student performance and student potential	2
Ability to make instruction comfortable and enjoyable for the student	2
Capacity to be empathetic towards students	1
Willingness to sacrifice time for individual appointments with students	1
Ability to make criticism constructive	1
Skill at using assignments in an effective manner	1
Willingness to allow students to make their own choices in terms of taking particular courses	1
Ability to feel challenged by teaching	1

CHAPTER V

SUMMARY, DISCUSSION & IMPLICATIONS

Summary of the Study

The purpose of this study was two-fold: to investigate the perceptions that undergraduate and senior students have regarding what constitutes effective instruction and to determine whether these perceptions differ between the two groups.

A total of 161 University of Alberta students, 77 seniors enrolled in Spring Session for Seniors and 84 undergraduates enrolled in regular Spring Session, completed a questionnaire regarding instructional characteristics of effective instruction. A Hotelling's T^2 was conducted on the data to test for an overall significant difference between the perceptions of senior students and the perceptions of undergraduate students in terms of the importance of 15 identified characteristics of effective instruction. Analysis of data indicated that an overall statistically significant difference was found between the perceptions of seniors and undergraduates at the .001 level of significance. However, in examining the differences between the seniors and undergraduates on each of the 15 characteristics of effective instruction, no difference was found to be

statistically significant.

Discussion

Despite the fact that the Hotelling's T^2 indicated an overall statistically significant difference between the perceptions of senior students and the perceptions of undergraduate students, statistically significant differences between the two groups on individual variables were not found.

Based on the findings in this study, it appears that both the senior students and the undergraduate students tend to concentrate their attention on learning the course matter. This is evident from the high rankings both groups gave to the following instructional characteristics: "knowledge of the subject matter", "communication skills", and "stimulates or broadens student interest". Furthermore, on the open-ended question both the seniors and the undergraduates most often cited these same three characteristics as being important in terms of effective instruction. Although these characteristics were ranked as being high for both groups, the question arises whether they were high for the same reasons.

Analysis of the research findings indicate that senior students first and foremost value the type of instruction which facilitates learning by stimulating and

enhancing interest in the subject taught. This is in accord with the research literature which suggests that seniors enroll in education because of their desire to study what interests them (Bass, 1986; Boshier & Collins, 1985; Boshier & Riddell, 1978; Furst & Steele, 1986; Pritchard, 1979; Wolf, 1985). Therefore, the more their interest is stimulated, the more they will likely study and in turn learn. It follows that instructors who are knowledgeable and effective communicators would have a greater chance of succeeding in reinforcing the interest of their senior students.

It appears that the traditional undergraduate students most value the type of instructor who is knowledgeable about the subject matter. This likely has to do with the fact that undergraduates are generally enrolled in courses which will enable them to gain knowledge to prepare them for an occupation (Boshier & Collins, 1985). Therefore, undergraduates probably want to be taught by an instructor who possesses a good command of the subject. The undergraduates also emphasized the instructor's communication skills and his ability to stimulate and broaden student interest. It follows that if the student is to pass tests, write reports, and obtain a certain grade point average in the course, the course content must be conveyed clearly and in such a manner which maintains and stimulates the

student's interest. Hence, it appears that perhaps for different reasons, both undergraduates and seniors would benefit from instructors who are knowledgeable, who are effective communicators, and who have the ability to stimulate interest.

Although not statistically significant, the largest difference between the perceptions of seniors and undergraduates in this study was on the characteristic "encourages students to think for themselves". Both groups indicated that this characteristic was important, however, seniors ranked it even higher in importance than the undergraduates. The high rating of this characteristic is consistent with the research in andragogical study which suggests that adult students are self motivated, autonomous, and thrive on taking control of their own learning, rather than relying on others (Brookfield, 1986; Cross, 1986; Eldred, 1985). Although the difference is not statistically significant, the seniors rated this characteristic as being even higher in importance than did the undergraduates which leads us to conjecture that the desire to control one's own learning, and educational independence and self motivation increase with the age of the student. This assumption, however, is somewhat questionable based on the high ranking that the senior students gave to the instructional characteristic "ability to stimulate or broaden student

interest". That is, if nontraditional students are self motivated and seek to control their own learning, it would seem that an instructor who stimulates student interest would not be considered that important (Keller & Switzer, 1983). Perhaps this finding implies that although nontraditional students tend to be self motivated and enjoy taking control of their own learning, they still value the type of instructor who stimulates and enhances their already keen desire to learn. In essence, the instructor plants the seeds of interest which the student will later cultivate in whatever manner best facilitates his own learning.

As the questionnaire developed for this study was based on research with traditional undergraduate populations, the possibility exists that common characteristics specific to senior students might not have been included. It is for this reason that the researcher utilized an open-ended question asking respondents to indicate the single most important characteristic of effective instruction. Twenty-five percent of the senior respondents chose a novel characteristic that was not already listed in the questionnaire. Although 18% of the undergraduate respondents also chose a novel characteristic, analysis shows that their responses were different when compared to the seniors. In their novel responses, seniors most

often cited the instructor's love or dedication for teaching as being first in importance, followed by their interest in the students, their understanding and empathetic manner, and their sincerity and truthfulness. Overall, these characteristics seem to emphasize the instructor's personality and interactive dimensions, while ignoring the role-related dimensions such as evaluation. If an instructor were to display the characteristics that the seniors cited as being important, they would likely serve to motivate the senior students' interest, while at the same time allowing them to relax and enjoy education. Furthermore, the emphasis on the instructors' enjoyment of teaching concurs with other research in the area of nontraditional student populations (Keller & Switzer, 1983; Pfister, 1978). Undergraduates, on the other hand, indicated that the instructors' relationship with their students was most important, followed by their interest in student performance and potential, and their ability to make instruction comfortable and enjoyable. Emphasis of these characteristics suggests that undergraduates, unlike seniors, are more concerned about getting along with the instructors who grade them and having an instructor who is interested in their progress toward their career while at the same time making instruction comfortable and enjoyable, and thus less intimidating.

Implications

If the demographic structure continues to change as the statisticians predict and if the number of senior students attending post-secondary institutions steadily increases, educators ought to be prepared for the change. If instructors were to understand the expectations of the senior students, they could attempt to increase their effectiveness by modifying their instructional methods accordingly. In order to make the educational experience more relevant for older adults, educators must also be aware of the special needs and life situations of seniors and design their instruction to meet these needs.

Educators who want to improve their instructional methods need to be cognizant of how the senior students' perceptions of effective instruction may differ from the more traditional undergraduate student population. The characteristics of effective instruction that the senior students in this study identified as being most important included in the following order: the instructor's ability to stimulate or broaden student interest, the instructor's knowledge of the subject matter, the instructor's communication skills, and the instructor's enthusiasm about the subject matter. The order of the characteristics that the undergraduate students indicated as being most important were as follows: instructor's

knowledge of the subject matter, the instructor's communication skills, and the instructor's lecturing and speaking ability. A further implication for instructors of both seniors and undergraduates arises from all students' low ranking of the following characteristics: the instructor's research and scholarship activities, the instructor's interests, and the instructor's personality and personal appearance. This implies that although these characteristics may be valuable for instructors to possess, they are not perceived by the students in this study to be of essential importance for instruction to be effective.

Institutions of higher education have a responsibility to employ the most appropriate instructor possible for teaching undergraduate and senior students. An awareness of undergraduate and senior students' preferences, in terms of the characteristics of effective instruction, could aid administrators in evaluating the probable teaching success of prospective instructors. For example, the following questions may be considered when interviewing teaching candidates: Does he/she possess the ability to broaden and stimulate student interest? Does he/she demonstrate considerable knowledge about the subject area he/she intends to teach? Does he/she communicate clearly during the interview? Does he/she speak with enthusiasm about past teaching

experiences? Such questions can assist administrators in selecting instructors who will likely design their instruction to make educational experiences more relevant for undergraduate and senior students.

Since the open-ended question regarding the most important characteristic of effective instruction yielded several novel responses by the seniors, there is a possibility that characteristics of effective instruction specific to senior students might have been excluded on the questionnaire. The implication for this finding is that further research needs to be undertaken in the area of senior students' perceptions of effective instruction in order that a questionnaire, which is based on research involving both undergraduate students and senior students, can be developed.

Based on the research findings, the overall statistically significant difference found between the perceptions of seniors and undergraduates raises the question of whether the difference indicated was a result of age or course credit status. Given the limitations of this study this question cannot be answered and we must conclude that the difference found may have been due to a combination of the two variables. Further research in this area might profitably focus on the comparison of senior students enrolled in credit courses with undergraduates enrolled in credit courses. This would

allow the researcher to examine age by itself as the independent variable, opposed to age and course credit status combined as in this study. The findings uncovered by such a future study would serve to shed further light on the limited body of research surrounding education for older adults.

As this study was conceived and executed to provide a better understanding of the perceptions of adult students, the research findings have value not only for improving education and learning for senior students, but also for traditional undergraduate students. By being aware of the instructional characteristics that specific student populations view as being effective, instructors who want to improve their instructional methods can attempt to do so by modifying their teaching style accordingly.

It is clear from the results of this study that statistically there is an overall difference between senior and undergraduate students' perceptions of effective instruction, however, no one characteristic of instruction yields a statistically significant difference. That is, the relative importance attached to the various characteristics indicates that both senior students and undergraduate students have similar views regarding the characteristics of effective instruction. The findings and the conclusions of the present study may

serve to encourage renewed thinking with regard to the education offered to adult students.

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APPENDIX A

CHARACTERISTICS OF EFFECTIVE INSTRUCTION

THE PURPOSE OF THIS SURVEY IS TO DETERMINE YOUR OPINION ON THE IMPORTANCE OF VARIOUS CHARACTERISTICS OF EFFECTIVE INSTRUCTION.

YOUR JUDGMENT ON THE IMPORTANCE OF EACH CHARACTERISTIC OF EFFECTIVE INSTRUCTION SHOULD BE BASED ON YOUR PAST EDUCATIONAL EXPERIENCES AND NOT ON ANY ONE PARTICULAR INSTRUCTOR. THIS IS NOT AN EVALUATION OF YOUR PRESENT INSTRUCTOR.

PART A:

PLEASE RATE EACH OF THE FOLLOWING CHARACTERISTICS OF EFFECTIVE INSTRUCTION USING THE RATING SCALE BELOW. RECORD YOUR RESPONSES BY CIRCLING ONE RANK FOR EACH CHARACTERISTIC OF EFFECTIVE INSTRUCTION. PLEASE RATE ALL CHARACTERISTICS AND DO NOT CIRCLE MORE THAN ONE RANK FOR EACH.

CHARACTERISTICS	VERY LOW IMPORTANCE					VERY HIGH IMPORTANCE	
	1	2	3	4	5		
1. COMMUNICATION SKILLS-- INTERPRETS ABSTRACT IDEAS AND THEORIES CLEARLY.	1	2	3	4	5		
2. PLEASANT PERSONALITY OR PERSONAL APPEARANCE.	1	2	3	4	5		
3. ABILITY TO STIMULATE OR BROADEN STUDENT INTEREST.	1	2	3	4	5		

VERY LOW
IMPORTANCE

VERY HIGH
IMPORTANCE

79

- | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 4. RESEARCH--SCHOLARSHIP
ACTIVITIES. | 1 | 2 | 3 | 4 | 5 |
| 5. GOOD ORGANIZATION OF THE
SUBJECT MATTER AND COURSE. | 1 | 2 | 3 | 4 | 5 |
| 6. ENCOURAGES STUDENTS TO
THINK FOR THEMSELVES. | 1 | 2 | 3 | 4 | 5 |
| 7. HAS A VARIETY OF INTERESTS. | 1 | 2 | 3 | 4 | 5 |
| 8. ATTITUDES TOWARD STUDENTS
WHICH ARE FAVORABLE. | 1 | 2 | 3 | 4 | 5 |
| 9. INTERESTING AS A LECTURER--
GOOD SPEAKING ABILITY. | 1 | 2 | 3 | 4 | 5 |
| 10. WILLING TO EXPERIMENT--
FLEXIBLE. | 1 | 2 | 3 | 4 | 5 |
| 11. SELF CONTROLLED,
COOPERATIVE, PATIENT. | 1 | 2 | 3 | 4 | 5 |
| 12. KNOWLEDGE OF SUBJECT. | 1 | 2 | 3 | 4 | 5 |
| 13. EFFECTIVE USE OF QUESTIONS
IN CLASS DISCUSSIONS. | 1 | 2 | 3 | 4 | 5 |
| 14. ENTHUSIASTIC ABOUT THE
SUBJECT. | 1 | 2 | 3 | 4 | 5 |
| 15. RESPECTS STUDENT OPINION--
IS TOLERANT TO STUDENT
DISAGREEMENT. | 1 | 2 | 3 | 4 | 5 |

PART B:

PLEASE COMPLETE THE FOLLOWING STATEMENT:

IN MY OPINION, THE SINGLE MOST IMPORTANT CHARACTERISTIC OF EFFECTIVE INSTRUCTION IS (THE CHARACTERISTIC THAT YOU CHOOSE MAY OR MAY NOT BE ONE ALREADY MENTIONED): _____

PART C:

PLEASE COMPLETE THE PERSONAL INFORMATION BELOW. RECORD YOUR RESPONSES BY PLACING A CHECK (✓) IN THE BLANKS PROVIDED. DO NOT SIGN YOUR NAME.

1. WHAT IS YOUR SEX?

____ MALE ____ FEMALE

2. WHAT IS YOUR AGE?

____ 18 - 24 YEARS

____ 25 - 34 YEARS

____ 35 - 44 YEARS

____ 45 - 54 YEARS

____ 55 - 64 YEARS

____ 65 - 74 YEARS

____ 75 + YEARS

3. WHAT IS THE EXTENT OF YOUR EDUCATION? (PLEASE CHECK ONLY ONE CATEGORY THAT INDICATES THE HIGHEST LEVEL OF EDUCATION YOU HAVE COMPLETED):

___ UNIVERSITY WITH DEGREE

___ UNIVERSITY WITHOUT DEGREE

___ TRADE CERTIFICATE OR DIPLOMA AND OTHER NON-UNIVERSITY TRAINING

___ HIGH SCHOOL WITH SECONDARY CERTIFICATE OR DIPLOMA

___ HIGH SCHOOL WITHOUT SECONDARY CERTIFICATE OR DIPLOMA

___ LESS THAN GRADE 9

4. ARE YOU ATTENDING SPRING SESSION FOR SENIORS?

___ NO

___ YES. PLEASE INDICATE THE NUMBER OF TIMES YOU HAVE
ATTENDED: _____

THANK YOU FOR YOUR HELP !